

recite "B" in the proper context. In addition, Applicant has amended FIG. 2 to remove "D" and its associated Box reciting "SURFACE DOPE". A corrected version of FIG. 2 is filed herewith.

FIG. 7 stands objected to on the grounds that reference signs "a", "b", and "c" depicted in FIGS. 7A-7B respectively are not recited in the Specification. In response, Applicant has amended FIGS. 7A-7B to remove reference signs "a", "b", and "c". Corrected versions of FIGS. 7A-7B are filed herewith.

The drawings are amended as directed by 37 C.F.R. 1.121(d), with the proposed changes in red ink. Upon approval by the Examiner, new drawings in compliance with 37 C.F.R. § 1.84, including the changes, will be filed. Since the objections to the drawings are properly addressed, Applicant respectfully requests withdrawal of the objections.

## **II. THE 35 U.S.C. § 102 AND § 103 REJECTIONS**

Claims 1, 4, and 5 stand rejected over U.S. Patent No. 4,959,278 (issued Sept. 25, 1990) to Shimauchi ("Shimauchi") under 35 U.S.C. § 102. Claims 2,3, and 6 stand rejected over Shimauchi under 35 U.S.C. § 103.

First, a brief discussion of Applicant's contribution to the art is helpful. While the prior art teaches that tin is useful as a corrosion-protective coating, disadvantageously, such tin layers are subject to whisker growth in electrical applications. Applicant has discovered that tin or tin alloys coated on a metal substrate under tensile stress, to provide a tensile-stressed tin or tin alloy coating, prevents tin-whisker growth in the coating. Applicant's discovery is highly advantageous in constructing electrical devices, for example, tin-containing electrical connectors.

Shimauchi provides no teaching or suggestion of tensile-stressed tin or tin alloy coatings as required by Applicant's claims. In its most relevant portion, Shimauchi recites:

As the reasons why the generation of whiskers can be prevented according to the present invention, it is presumably considered that the undercoat of tin or tin alloy plating has changed to a material which does not induce the whisker generation and that the internal stress of tin or tin alloy plated layer will be relaxed in view of the fact that indium and tin or tin alloy has diffused to each other to partially form an alloy.

Shimauchi, column 5, line 64 through column 6, line 3. This is exactly opposite to Applicant's teachings, which require tensile stress. For a reference to anticipate, it must contain each and every element of the claimed invention. *Advance Display Sys. v. Kent State Univ.*, 212 F.3d 1272 (Fed. Cir. 2000).

Furthermore, with respect to the obviousness rejection under 35 U.S.C. § 103, not only does Shimauchi fail to suggest Applicant's invention, but actually teaches away from Applicant's claimed invention.


A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by Applicant.

*In re Gurley*, 31 U.S.P.Q.2d 1130 (Fed. Cir.1994).

In sum, there is no anticipation nor obviousness grounds since Shimauchi does not teach or suggest Applicant's claims, and in fact, teaches away. Accordingly, the Examiner is respectfully asked to withdraw the § 102 and § 103 rejections.

In view of the above remarks and amendments, Applicant has overcome all rejections and objections, and reconsideration is requested and a speedy allowance is earnestly sought. No fee is required for entry of this Reply; if any fee is due however, please charge the required fee to deposit account number 501358. Attached are a Petition under 37 C.F.R. § 1.137 for revival of the above-captioned application with fee authorization and a Petition under 37 C.F.R. § 1.136 for extending the time to file this Reply with fee authorization.

Respectfully submitted,

  
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June 10, 2003

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EXHIBIT A: Marked-Up Version Of The Amended Paragraph Of The Specification

Additions are indicated by underlined text. The paragraph at page 4, lines 8-10 of the Specification is amended as follows.

The next step, shown in Block B, which is optional, is to coat the conductive substrate 10 with a metal underlayer 12 such as nickel. The underlayer 12 can have a thickness from 0 to about 5  $\mu\text{m}$ . A suitable nickel underlayer can be electrodeposited using the following bath composition.



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FIG. 1

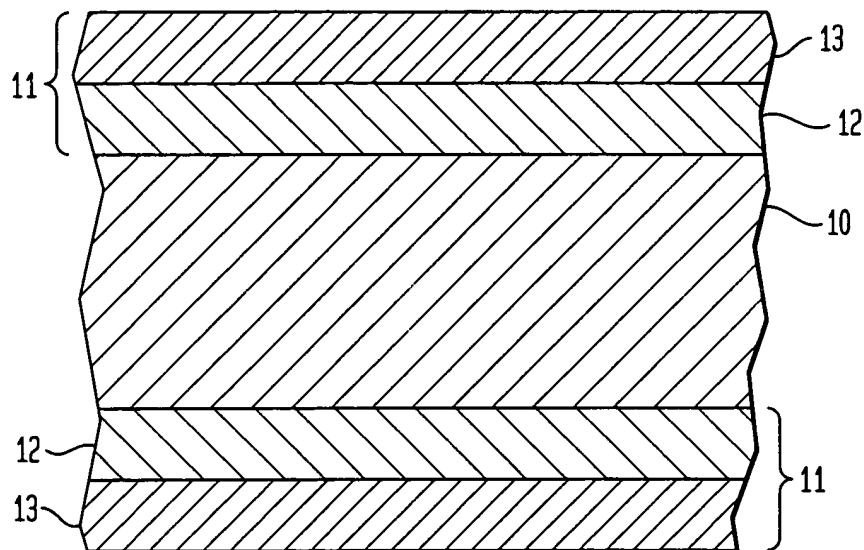
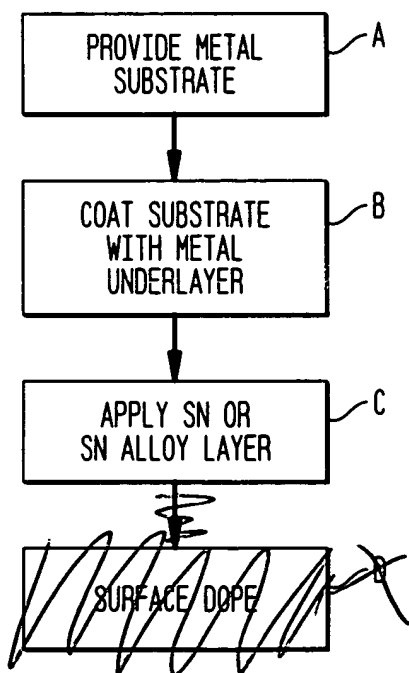


FIG. 2





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FIG. 7A

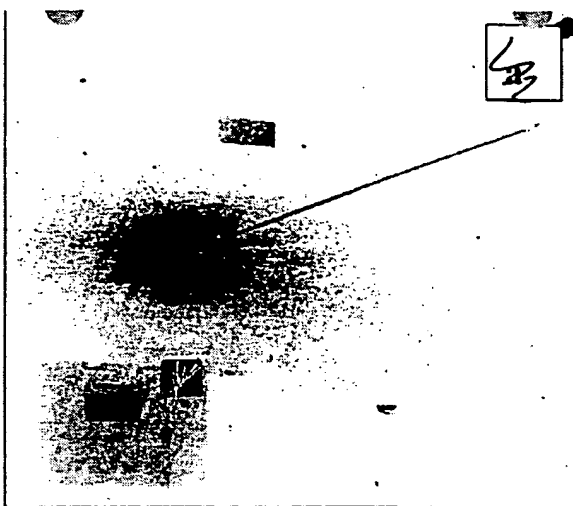


FIG. 7B

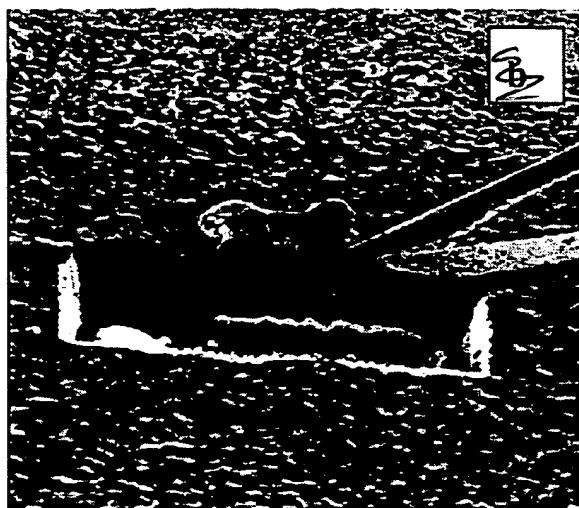


FIG. 7C

